

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
28 April 2005 (28.04.2005)

PCT

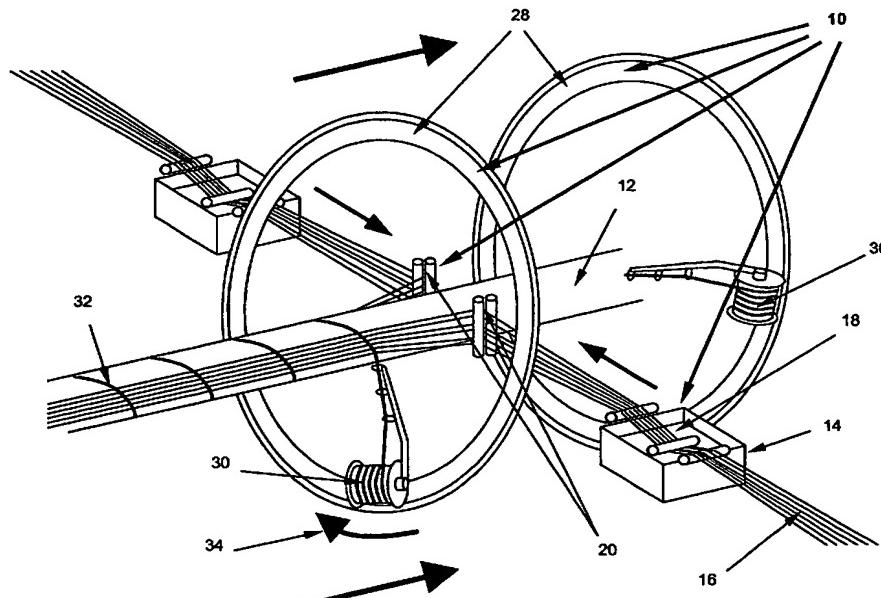
(10) International Publication Number  
**WO 2005/037527 A1**

- (51) International Patent Classification<sup>7</sup>: B29C 53/60, 53/56, 53/82, B65H 54/02
- (21) International Application Number: PCT/CA2004/001885
- (22) International Filing Date: 18 October 2004 (18.10.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2,444,324 22 October 2003 (22.10.2003) CA
- (71) Applicant (for all designated States except US): RESIN SYSTEMS INC. [CA/CA]; 14604- 115A Avenue, Edmonton, Alberta T5M 3C5 (CA).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ELLIOTT, Bruce, L. [CA/CA]; 142 Rhatigan Road, Edmonton, Alberta T6R 1N2 (CA).
- (74) Agent: THOMPSON, Douglas, B.; Thompson Lambert LLP, 10328- 81 Avenue, Suite#200, Edmonton, Alberta T6E 1X2 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:  
— of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR MAINTAINING FILAMENTS IN POSITION IN A FILAMENT WINDING PROCESS



(57) Abstract: A method for maintaining filaments in position when manufacturing composite parts through a filament winding process. In its most basic form the method includes a first step of applying resin impregnated filament (16) onto an elongate mandrel (12). A second step is involved of winding yarn (32) onto the elongate mandrel (12) overlying the resin impregnated filament (16), to maintain the resin impregnated filament (16) in position and under tension.

WO 2005/037527 A1



**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*